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SERVICE NEWS

PUBLISHED BY THE SOIL CONSERVATION SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

The NEWS is intended to inform staff members of developments within the Service and is not for distribution to others.

Benton, Miss Mildred

March 2, 1939

CONSERVATION IN EUROPE

"In many parts of Central Europe, certain conservation measures have been under way so long that they are often taken for granted" is the comment of Melville H. Cohee, assistant head, section of cooperative planning, who spent the past seven months studying land use regulatory measures and their administration in the Old World.

Mr. Cohee found that the far-reaching conservation laws in operation in the countries visited -- England, Denmark, Germany, Hungary, Italy, and Switzerland -- are based for the most part on still older laws. The torrent flood control techniques followed in Switzerland and in Upper Silesia and Southern Bavaria of Germany are well established and recognized throughout Europe.

Because of climatic and physical conditions water erosion is not prevalent in Central Europe; conservation practices of long standing exist, however, although they are not always so called. Wind erosion control has been under way in many places for 50 or more years.

Outstanding conservation measures are the well-known silvicultural practices in Germany, the Bonifica Intergrale projects carried out under the Consortia in Italy, the torrent control work in Upper Silesia and Switzerland, the hedgerow and shelter-belt system of wind erosion control in Jutland of Denmark and the forestry protection program on the light sandy soils of the Hungarian Plains and the Danube region.

General governmental direction of land use, soil conservation, and flood control measures within the framework of well-formulated laws is a very old arrangement in Europe, according to Mr. Cohee. Cooperative undertakings between the various governments and groups of land owners have been carried out successfully for many years.

Though comparatively new, erosion control techniques in the United States are well advanced and in many cases surpass those practiced in Central Europe.

SAND DUNE STABILIZATION

E. H. Reed, head of the farm management unit, recently returned from a visit to the newly formed West Ottawa district at Grand Haven, Mich. Conditions here differ considerably from those in the other districts of Region 3, the outstanding problem being the stabilization of sand dunes. Much of the land has been abandoned and 213 farms are being studied in order to arrive at a decision as to the proper land use for the area. Of the utmost importance is the correlation of data derived from physical and economic studies of the district.

Mr. Reed also visited the Ohio State University where he conferred with the regional and research men on the study of five-year records which have been obtained by the operations division of the Salt Creek area in cooperation with the University.

RAY E. DICKSON HONORED

At its 12th annual meeting, the Texas Agricultural Workers' Association awarded the Distinguished Service Plaque of 1939 to Ray E. Dickson, superintendent of the State Agricultural Experiment Station at Spur, Tex. The president of the Association, Louis P. Merrill, Regional Conservator of Region 4, presided over the merit award banquet on January 13, 1939.

Following his graduation from Texas A. & M. College, Mr. Dickson joined the staff of the Texas Agricultural Experiment Station. Since 1915 he has held the position of superintendent of Substation No. 7 at Spur, cooperating with the Soil Conservation Service in recent years.

Mr. Dickson's versatility has enabled him to make valuable contributions in several fields of agricultural research. While his accomplishments in grain sorghum improvement and with livestock feeds and feeding have been significant, it is as a pioneer in the investigation of soil and water conservation problems that he is best known, and perhaps it is in this field of agricultural research that he has made his most notable contribution.

It is in recognition of these distinguished services, which have contributed to the agricultural welfare not only of Texas but of the entire Nation, that the Texas Agricultural Workers' Association awarded its Distinguished Service Plaque of 1939 to Mr. Dickson.

TRAINING FOR SEDIMENTATION MEN

To provide special training for work on the flood control surveys, the section of sedimentation studies is planning a course of intensive training in which 21 sedimentation men will participate. One to three men from each region, except Region 9, will attend the course. The Washington office will be represented by Carl B. Brown, S. C. Happ, Gordon Rittenhouse, and E. M. Flaxman.

From February 27 to March 11, the problems of stream and valley silting will be studied in the Tallahatchie watershed at Oxford, Miss. This is one of the watersheds being surveyed under the flood control program. Here the technique of investigation of channel filling and valley land impairment by sedimentation will be studied.

In the Trinity River watershed near Fort Worth, Tex., another week will be devoted to the problems of reservoir silting and their investigation.

The establishment of the flood control unit has necessitated an increase in sedimentation personnel. Additional employees for this work are being taken on by the flood control section, but will be under the technical supervision of the section of sedimentation studies. The school is being held to acquaint the newly assigned regional men with the methods of investigation used by the sedimentation studies section.

A. J. PIETERS HONORED

Until his retirement on November 1, 1938, A. J. Pieters was principal agronomist of the Soil Conservation Service. In selecting Dr. Pieters as the "1938 Man of the Year" for service to the agriculture of our Southeastern States, The Progressive Farmer says: We salute and nominate Dr. Pieters because of his monumental work in introducing improved lespedeza varieties in the Southern States and promoting the general acceptance of this amazing crop ... And not only did Dr. Pieters discover and develop new varieties of lespedeza but by speeches, bulletins and books he has made himself a missionary in its behalf, preaching everywhere its three-fold value as (1) a hay plant, (2) a pasture plant, and (3) a soil-saver and soil-builder."

Dr. Pieters is now principal agronomist of the United States Golf Association Green Section. The first issue of Turf Culture, published under the auspices of the Green Section, appeared in January 1939.

EDWIN C. HOLLINGER JOINS SCS

A recent addition to the staff of the section of cooperative relations in extension is Edwin C. Hollinger, who will work particularly on the SCS districts in the Far Western States.

For about 10 years Mr. Hollinger was county agent for the Extension Service in N. Mex., and served as assistant extension director at the State College of New Mexico until 1936, when he became extension soil conservationist. For the past two years he has been very active in the organization of districts, and served as administrative officer of the State Soil Conservation Committee for which he reviewed petitions, organized meetings, conducted referendums, etc.

Mr. Hollinger, who has spent the past two weeks in Washington, is en route to New Mexico and other States in Regions 6 and 8.

DETAILED TO FLOOD CONTROL PROGRAM

From Los Angeles, Calif., Harry Blaney of the USDA division of drainage and irrigation has been detailed to Washington for several weeks to assist in the development of the flood control program. Mr. Blaney, who has had many years' experience in this type of work with the Bureau of Agricultural Engineering, will serve as chairman of the Committee on Procedures for Suspended Load Studies. Carl Brown of the sedimentation studies section and Glen Holmes of the section of watershed and hydrologic studies are members of the same committee. Joe W. Johnson will replace Mr. Brown during the latter's absence from Washington in connection with the training work on flood control surveys referred to elsewhere in Service News.

PRINTERS' INK

An article by H. H. Bennett entitled "Soil Conservation Faces Gigantic Task" appears in Forestry News Digest for January 1939. Dr. Bennett points out that drought and dust storms are directly tied in with injudicious land use and stresses the need for thoughtful planning by local, state and national groups.

Soil Conservation Service has been delegated by Secretary Wallace to carry out all physical land-use programs which involve operations by the government and to work directly with farmers on the land. After outlining the purpose and plans of the Service, the Chief continues: "As rapidly as possible, these several sub-programs will be reoriented and adjusted so that each supports the others and all will form a single broad-gauge program of conservation and land use adjustment."

In the Journal of Geology for January-February 1939, appears an article entitled "Lyell Gully, a Record of a Century of Erosion" by H. Andrew Ireland of the section of climatic and physiographic factors of erosion.

After a visit to the United States in 1846, Sir Charles Lyell published a detailed, illustrated description of a gully near Millodgeville, Ga. Although thousands of gullies of the same type may be found throughout the Piedmont, the Lyell gully is unique in that its history has been traced through 110 years. The gully, which according to Lyell was "55 feet in depth, 300 yards in length, and varying in width from 20 to 180 feet" today measures 750 feet in length, 500 feet wide at the maximum, and 60 feet deep.

"Top-Dressed Grassland Stops Soil Washing" is the title of an article by Brandon Wright, state coordinator for the Soil Conservation Service for Vermont, which appears in the Agricultural Leaders' Digest for February 1939. As a result of tests carried out on slopes on the Vermont hillsides, Mr. Wright has reached the conclusion that "grass nearly eliminates erosion damage."

In the same issue of the Agricultural Leaders' Digest, B. E. Clark, acting state coordinator of the Soil Conservation Service in cooperation with the University of Illinois College of Agriculture, points out that hundreds of Illinois farmers are cooperating in soil improvement and erosion control projects. Henry Miller and Edward Sharp who operate adjoining farms near Mount Carroll, Ill., have agreed to replace the straight fence between their farms with a boundary line following the contour.

L. L. Lough, head of the Soil Conservation Service in W. Va., discusses three years of research experiments in an article on "Contours Conserve Plant Food as well as Soil Moisture" appearing in the February issue of Agricultural Leaders' Digest. Experiments carried out by the SCS and the New York State College of Agriculture show that potato yields were greater by 10 to 36 bushels per acre on plots protected from erosion than on neighboring unprotected plots.

In the Proceedings of the American Society of Civil Engineering for February, Hunter Rouse discusses "Laboratory Investigations of Flume

Traction and Transportation" and Glenn W. Holmes and Dr. Rouse discuss "A Theory of Silt Transportation." Mr. Holmes is assistant hydrologic engineer of the section of watershed and hydrologic studies. A recent book by Dr. Rouse "Fluid Mechanics for Hydraulic Engineers" was reviewed in the January issue of Soil Conservation by Phoebe O'Neill Faris.

In the January, 1939 issue of The Cattleman (Texas), in an article entitled "You and Water and the Government," Paul H. Walser, SCS state coordinator, College Station, Tex., describes the problems confronting the farmer in Texas and the measures necessary for successful farming.

RESERVOIR SILTATION STUDIES

Alexis W. Garin of the economic research section left this week for Texas, where he will confer with Kenneth H. Myers, H. V. Geib, Walter J. Roth, and others of the Soil Conservation Service, members of the Texas Agricultural Experiment Station, and the Bureau of Agricultural Economics, concerning the proposed economic studies of reservoir siltation on the watersheds of the Brazos, Colorado, and Trinity Rivers. Dr. Garin recently completed a similar study in the Piedmont of North Carolina, which reveals that the erosion originating on private farm lands is causing public damage through the silting of reservoirs and the pollution of water intended for domestic use. This siltation involves the eventual replacement of these reservoirs and the annual expenditure of large sums for clarification and purification of the water in order to make it potable.

REGIONAL BIOLOGISTS MEETING

At the SCS regional biologists annual staff meeting, held at Detroit, Mich., February 8-11, the following topics were discussed:

- Soil Conservation Districts;
- Land Utilization Projects;
- Personnel;
- Water Facilities and Flood Control;
- Research and Surveys;
- Insect and Rodent Problems;
- Public Relations;
- Planting Problems.

Ernest G. Holt, Edward H. Graham, and William R. Van Dersal of the section of wildlife management, and Ralph F. Wilcox of land utilization attended from Washington.

AMERICAN WILDLIFE CONFERENCE

At the Fourth North American Wildlife Conference, held at Detroit on February 13-15, Warren W. Chase, regional biologist of Region 5, was re-elected Treasurer of the Wildlife Society, and William R. Van Dersal of the wildlife management section was elected Chairman of the Membership Committee.

The following papers were presented by SCS men:

"Ponds for Wildlife in the Southern High Plains" by Philip F. Allen, regional biologist, Region 6.

"Legumes for Soil and Wildlife Conservation" by Edward H. Graham, of the Washington office.

"Mulching to Establish Vegetation" by Sidney Franklin, area biologist of Region 2.

"Development of Ponds as Wildlife Areas in Missouri" by C. N. Davis, project biologist at Fulton, Mo.

"Hedges for Erosion Control and Wildlife Management" by Frank C. Edminster, regional biologist of Region 1.

The March issue of Soil Conservation will be devoted to the subject of wildlife in its relationship to soil conservation.

DISCUSSED RESEARCH PROCEDURE

The group discussion covering economic research procedure, held in Washington February 1 and 2, was attended by John W. Barnard of the Upper Darby regional office, DeForest S. Hungerford of the Spartanburg regional office, and P. L. Fogle of the Dayton regional office, division of operations, and James W. Bottomley and L. Jay Atkinson of Connecticut, David H. Walter and J. E. McCord of Pennsylvania, Charles Messer and John W. Carnecross of New Jersey, Everett C. Weitzell of West Virginia, G. W. Forster, S. W. Atkins and Henry G. Brown of North Carolina, Robert H. Blosser of Ohio, Elmer L. Sauer of Illinois, and H. O. Anderson of Wisconsin.

The first day was spent in discussion with members of the research and operations divisions, SCS, and the Bureau of Agricultural Economics, covering administrative and technical matters. The second day was given over to the specific discussion of the farm budgeting procedure as a tool to be used in the appraisal of the recommended soil

and water conservation programs as to their economic feasibility. The farm budgeting procedure is a tool which has long been used in Europe and more recently in this country for the promotion of income improvement on farms. The use of this technique for the appraisal of the soil conservation plans is a new development, but promises to be of material service to the economist, to the operations conservationist, and to the farmer.

Messrs. Anderson, Atkins, Brown, Carnecross, Sauer, and Weitzell remained for the week, in order to arrange for other matters of business, including the clearing of manuscripts.

INFORMATION CONFERENCES

Regional information officers, state extension editors and land utilization officials discussed problems of information and education incident to the reorganization of the USDA and the SCS in a series of inter-regional conferences. George A. Barnes and John Dreier of the SCS information section and J. J. Henry of the USDA information office were the Washington delegates at the conferences. Regions 1, 2, 3, and 5 met at Dayton, Ohio, on February 16, 17 and 18; Regions 4, 6 and 9 at Lincoln, Neb., on February 20, 21 and 22; and Regions 8, 10, and 11 at San Francisco, on February 27, 28 and March 1st.

ACCIDENTS REDUCED IN REGION 2

Enrollees in 64 CCC camps assigned to the Soil Conservation Service in the Southeastern Region worked 16,091,776 man hours during 1938 with only 189 loss-time accidents, T. S. Buie, regional conservator, reports. No fatal accidents occurred while the enrollees were under Service supervision.

The accident frequency for loss-time accidents during 1938 was 11.75 per million man hours, a reduction of 25 percent as compared with 1937. Eleven camps operated throughout the year without a loss-time accident. These include camps at Ridgeway, Berea, and Danville, Va.; Mt. Airy and Burlington, N. C.; Greenwood, Rodman, and Rock Hill, S. C.; Stevens Pottery, Ga.; Greensboro and Auburn, Ala.

CALIFORNIA CONSERVATION WEEK

The period March 7 to 14 has been set aside for the observance of Conservation Week in California, in which many Federal and State agencies and California organizations are joined in this educational work. Pearl Chase of Santa Barbara is chairman of the observance, with L. A. Barrett of the Commonwealth Club of San Francisco as associate chairman. The schools, radio, and exhibits will contribute

to public education on forest fire prevention, recreation, wildlife and soil conservation and other phases of the broad conservation problem.

NOTES

Monday, January 30, was spent at Upper Darby, Pa., by David H. Walter, J. E. McCord, A. E. Brandt, E. H. Reed, and Walter J. Roth in a discussion with the regional staff and John Paul Jones and Alvin C. Watson, covering economic research in Region 1 and in particular a manuscript report prepared by Mr. Walter of the economic research section cooperatively with the Bureau of Agricultural Economics and the Pennsylvania Agricultural Experiment Station in regard to the Little Antietam watershed demonstration area in Franklin County, Pa.

Helen M. Strong, in charge of educational relations, is on a two weeks visit to Region 3. In Cleveland she will attend meetings of the American Association of School Administrators, the National Council of Elementary Teachers; the National Association for Research in Science Teaching, and the American Association of Teachers Colleges.

Dr. Strong will lecture on the role of education in soil conservation before the Cleveland Garden Club and the Cleveland Heights City Club. From Cleveland she will proceed to Detroit, Mich., to attend the meetings of the Progressive Education Association.

Walter J. Roth and A. E. Brandt have gone to Lincoln, Nebr., to review the economic research procedure preliminary to the publication of an economic survey report on the Boone-Nance Counties Area in that State. Kenneth H. Myers of Amarillo, Tex., and Earl L. Struwe of Lincoln also will participate.

From Nebraska, Messrs. Myers and Roth will proceed to Stillwater, Okla., thence to College Station and Amarillo, Tex., to review the economic and social research under way at those points cooperative with the respective State Agricultural Experiment Stations and the Bureau of Agricultural Economics.

On February 21 Shane MacCarthy of the administration unit, James L. Buckley of the personnel section and Lester L. Evans of the USDA classification office left for a two weeks visit to Regions 3, 5 and 6 for the purpose of making classification studies of the procurement positions. The trip was a follow-up of a recent conference at Washington in which I. J. Mead of Upper Darby, John R. Moore of Region 5 and the late Arthur Shea of Region 6 discussed the classification of positions in the regional procurement offices with representatives of the Washington sections of personnel and administration.

From the North Concho watershed near Fort Worth, Tex., one of the first complete, detailed reports has been submitted. Edwin R. Kinnear, of the flood control survey, has just returned from an inspection trip to the watershed where he reviewed the development of the final report.

Mr. Kinnear also spent three days on the Trinity watershed in Texas and stopped at the Coosa watershed in Georgia to assist in the location of tentative sites for stream gauging stations to be set up in cooperation with the U. S. Geological Survey.

From February 12 to 15 Thomas L. Gaston of the section of cooperative planning was in Nashville, Tenn., with H. L. Price of the Solicitor's Office of the USDA, working on the adaptation of the Standard State Soil Conservation Districts Law to the legal requirements of the State of Tennessee. Since its establishment in 1936, Mr. Gaston has been called on several times to help adapt the SCS Districts Law to the requirements of the various States. To date the law has been passed by 26 States.

N. Robert Bear, representing the division of operations, and Shane MacCarthy, representing the division of administration, recently visited Salina, Kans., to assist the regional office staff in connection with personnel transfers of that region.

From there Mr. MacCarthy proceeded to Milwaukee, Wis., to attend a meeting of the land utilization field clerks and to discuss with Ralph Musser problems concerning the transfer of headquarters of Region 5 from Des Moines, Iowa, to Milwaukee.

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From February 15th to 18th Howard L. Cook of the section of watershed and hydrologic studies was at Spartanburg, S. C., inspecting the work being done at the outdoor hydraulic laboratory and assisting in the development of working plans and analysis of data. Mr. Cook left on February 9th for the Massachusetts Institute of Technology, Boston, to confer with Prof. H. E. Edgerton regarding special photographs of raindrop and erosion phenomena, returning to Washington February 11th.

At the request of H. L. Borst, project supervisor; soil and water conservation experiment station, Zanesville, Ohio, L. L. Harrold, associate hydraulic engineer of the watersheds section, spent February 13 and 14 at Zanesville assisting the WPA project in the compilation of rainfall and run-off data from the watersheds on the Zanesville project.

Clarence S. Jarvis of the same section has been temporarily detailed to Fort Worth, Tex., and vicinity for approximately 60 days for the purpose of consultation and cooperation in preparing reports on detailed flood control surveys which are being conducted under the auspices of the section of flood surveys.

On February 10 W. D. Potter of the section of watershed and hydrologic studies left on an extended field trip to Cartersville, Ga., and points in the States of Georgia, Alabama, Tennessee, North Carolina, and South Carolina to assist in the flood control work being inaugurated by the flood control surveys.

Under the land utilization set-up the States of Ohio, Michigan, and Indiana were administered from Milwaukee, Wis., and those of Kentucky and Tennessee from Atlanta, Ga. All five States will in future be administered from Dayton, Ohio. J. S. Cutler, regional conservator of Region 3 spent February 16-18 in Washington discussing the transfer and formulating working plans.

George C. Moore, manager of the demonstration SCS project at Bath, N. Y., was in Washington on the 20th conferring with Wellington Brink, chairman of the Project Monograph Committee, and other members of the Washington staff. The Bath project was the first to be established in the State and is the largest in New York, covering approximately 1,440 potato and dairy farms.

William F. Watkins of the section of cooperative relations in extension, left for Madison, Wis., on February 22nd to attend a meeting of representatives of the Wisconsin State College and the Soil Conservation Service. Working plans for cooperative relationships will be informally discussed.

Mr. Watkins also plans to visit the Burns-Homer-Pleasant district office.

From February 15 to February 21, A. E. McClymonds, regional conservator of Region 9, conferred with Washington personnel on problems connected with the change of headquarters of his region from Rapid City, S. Dak., to Lincoln, Neb., and the intergration of the land utilization office with the SCS.

From January 30 to February 11, A. D. Ellison, in charge of program improvement of Region 9, was in Washington where he discussed with the members of the research division cooperative project agreements and project working plans. He also conferred with Washington technicians on procedure for program improvements.

The annual meeting of the Association of Highway Officials of the North Atlantic States was held at New York February 15-17. Arnold M. Davis of the engineering division of the SCS addressed the 1,200 assembled engineers on "Conservation and Slope Protection."

Samuel Goodacre left for the West Coast on February 12th to attend a chief clerks meeting at Spokane, Wash., on the 15th, 16th and 17th. He was in Rapid City, S. Dak., from the 20th to the 23rd, and returned to Washington on February 25th.

At a meeting of the Association of Southern Agricultural Workers in New Orleans on February 1-3, John F. Preston, head of the woodlands section, read a paper entitled "Farm Forestry from the Viewpoint of the Soil Conservation Service."

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Benton, Miss Mildred

March 23, 1939

SCS AND FARM FORESTRY

To clarify his statement of October 6, 1938, and to clear up any possible misunderstanding of that part of the reorganization of the USDA which affects farm forestry, the Secretary issued a new memorandum on January 31, 1939.

Soil Conservation Service is to be responsible for organizing, initiating, and directing all farm forestry programs financed under the authority of the Cooperative Farm Forestry Act in cooperation with the Forest Service and other departmental bureaus. This, however, "does not authorize, and should not cause, the development of a second forestry agency."

The Forest Service, the SCS, the Extension Service, the BAE, and the Office of Land Use Coordination shall each designate one member to form a Farm Forestry Committee. The functions of this committee shall be to promote cooperative action by the agencies most concerned with farm forestry, to give attention to policy questions which require action or consultation in the Office of the Secretary and to correlate estimates for the various types of work undertaken under the Cooperative Farm Forestry Act.

The farm forestry program of the SCS is to be practiced on farm woodland, which is interpreted as "any forest or potential forest land on farms or operated in connection with farms where the economy of the entire farm holding is based primarily on production of other than forest crops." Non-farm forest land, under the jurisdiction of the Forest Service, is "any forest or potential forest land in holdings whose economy is based primarily on forest land and the products therefrom."

CALIFORNIA CONSERVATION COMMITTEE

At a recent special session of the California State Legislature, the following members of a state soil conservation committee were appointed: Dean Claude B. Hutchinson, College of Agriculture; Professor B. H. Cocherson, Director of the Agric. Extension Service, Univ. of Calif.; and Edward Hyatt, state engineer. Walter W. Wier has been appointed secretary.

The committee will promote the formation of soil conservation districts, investigate proposed districts, cooperate with SCS and with individuals and corporations interested, and coordinate the activities of the various agencies.

The administration and operation of the program will devolve on the state officials; the university members of the committee will act in an advisory capacity only.

NUT TREES FOR EROSION CONTROL

For the past three months Jackson M. Batchelor of the hillculture section has been conducting exploratory studies on utilizing the nuts of black walnut and evaluating cherry bark oak for its erosion control values. The Bureau of Plant Industry cooperated in the walnut study, and work on the oak is carried out through and with the technical staff of Region 4, SCS, under the chairmanship of regional forester H. W. Mitchell.

Incidental to this work, Mr. Batchelor also collected propagating material and data on other plants offering promise for hillculture purposes. More than 50 selections of nut tree varieties, oaks suitable for hog-lot planting, mulberries, plums and leguminous ground cover plants acquired by Mr. Batchelor in Texas, Louisiana and Arkansas, have been sent for evaluation and testing to the SCS tract at the National Agricultural Research Center, Beltsville, Maryland, and to other agencies cooperating in hillculture tests.

In cooperation with the Bureau of Plant Industry, the hillculture section has initiated studies of plant selections which appear to have superior value for combined erosion control and economic purposes. Black walnuts, for example, often are allowed to lie discarded on the ground in certain sections of the country because farmers do not know where and how to dispose of this crop. If the owners can be aided in securing supplemental farm income from the nuts, not only will existing stands be saved from the woodman's ax, but additional plantings will be made on land too steep for safe farming. This is the phase being cooperatively studied.

Typical of the data obtained by Mr. Batchelor is the report of technicians of the SCS-CCC Camp, Mayfield, Kentucky, concerning the George Washington cherry tree located in Hansen, Hopkins County, Kentucky. This tree grows on an eroded site and it is claimed to bear from 500 to 700 gallons of fruit a year. The information available indicates that in a bumper year the owner of the tree sold 1,100 gallons of cherries at 40¢ per gallon. If systematic tests show that this cherry selection is well adapted to grow on steep, erosive lands, it represents a valuable possibility for development under hillculture practices.

THE SOUTHERN PLAINS PROBLEM

Cover as the solution of the erosion control problems, and the necessity of utilizing every drop of rain and flake of snow in achieving this goal are stressed by Glenn K. Rule in "Land Facts on the Southern Plains," recently issued as Misc. Publ. No. 334.

Soil types, variation of physical conditions, crop adaptation, and the water-saving and protective measures employed are discussed in the text.

From data supplied by project technicians under the direction of H. H. Finnell, regional conservator, and utilizing all available information of the USDA and the State Agricultural Experiment Stations, a map dividing Region 6 into 10 problem-area groups has been compiled. In his foreword, Dr. Bennett says: "It is neither a soils map, a rainfall map, a topographic map, nor even a land use map. Rather the map represents the first attempt to isolate and label those bodies of land where the soil, climate, and appropriate farming practices are somewhat similar."

FLOOD CONTROL IN NORTH CONCHO WATERSHED AREA

More than half of the disastrous 1936 flood in the North Concho watershed, Tex., could have been averted had effective water conservation measures been installed throughout the million-acre watershed, in the opinion of C. S. Jarvis of the watershed and hydraulic studies. Dr. Jarvis recently spent two months in Texas collaborating on the preparation of a report on the flood control surveys in the North Concho watershed.

Two-thirds of the watershed area is covered with Abilene soil forming a ground so thirsty that it will drink without ceasing -- of course in decreasing amounts on successive days during a storm -- as demonstrated by 10-year records at Spur (Tex.) Agricultural Experiment Station and confirmed by more than three years of SCS operations in

the North Concho valley. For this reason the watershed is peculiarly adaptable to reservoir and water spreading conservation measures.

EIGHT ADDITIONAL CLIMATIC STATIONS FOR BELTSVILLE

An experimental evaporation station has been in operation for several months by the section of climatic and physiographic research at Arlington Farms, Va. The results have been so satisfactory that eight additional installations are being planned for the Beltsville Farm, Md.

Benjamin Holzman, who has been analyzing the data obtained from the Arlington Farm station, states that important fundamental information on transpiration will be obtained. The measurement technique, employing modern meteorological theory, consists of moisture gradient and wind shear observations in the lower atmosphere. These factors, when combined into a single equation, permit determination of the actual amount of moisture that leaves the ground surface by evaporation and determination of the amounts of dew and frost condensation.

SCS IN PUERTO RICO

With 2,137,280 acres of land -- of which 1,220,000 is under cultivation -- and with 70% of the farm population concentrated on 14% of the total land area, it is obvious that normal land use problems are greatly intensified in Puerto Rico.

The soil conservation program, however, is making very definite progress in erosion control, according to G. W. Musgrave and W. F. Peel who have recently returned after spending two weeks reviewing the work of the SCS on the island.

Soil Conservation workers have been confronted by problems which are unique, including particularly the very steep slopes upon which work must be done. The soil and moisture conservation practices which have been put into effect are beginning to show definite results and their acceptance is becoming general through the splendid assistance of the many cooperating agencies.

RECENT FILM RELEASES

The following film strips, issued through the visual information unit, are available for purchase by field offices:

Series 504, "Gully Prevention and Control," 74 frames, by H. G. Jepson of the Washington engineering section. This film not only deals with engineering and agronomic measures for gully control,

but stresses proper land use in preventing gully formation. Because the strip includes pictures from every section of the country, it can be used in educational work in all regions.

Series 520, "A Story of Topsoil in the Northeast," 49 frames. This is a general story of erosion problems and the conservation measures used by cooperators in the Northeastern states. It originated in Region 1.

Series 523, "Soil Erosion -- Whose Problem?" 31 frames. Although local pictures are used in this strip -- prepared by Region 5 -- it is of general interest. The responsibility of farmers in helping plan and carry out soil and moisture conservation programs in districts is developed. The strip tells how farmers in a given watershed can work out cooperative programs for the benefit of individual farms.

Series 524, "Soil and Water Conservation in Arkansas," 48 frames. This film originated in Region 4. While it deals exclusively with erosion problems and soil and moisture conservation measures in Arkansas, the strip will be of interest to workers in most Southern and Southeastern states.

Series 525, "Soil Conservation in Ohio Farming," 39 frames. Prepared in Region 3, this is another somewhat localized strip. Although it deals with problems and control measures in Ohio, it will be useful for general educational purposes in most regions.

CLIMATIC STUDIES AND LAND USE

A conference at New Philadelphia, Ohio, on March 6th, to discuss flood control surveys, was attended by Arthur C. Ringland, chairman of the Flood Control Coordinating Committee; L. C. Gray and J. T. Sanders of the BAE; C. W. Thornthwaite, H. Andrew Ireland, C. F. Stewart Sharpe and Leonard B. Corwin of the section of climatic and physiographic research; and William F. Simpson, Muskingum Survey party leader.

The purpose of the meeting was to discuss the relation of climatic and meteorologic studies to the influence of land-use practices on run-off. It is expected that these studies will help determine the extent to which conservation practices can reduce run-off and flood flows.

FARM PLANNING IN GEORGIA

Administrative officials of the SCS, Extension Service and Experiment Station for the State of Georgia, and the supervisors of vocational

agriculture of the State Agricultural College decided to hold a series of training meetings to permit an exchange of ideas of the various groups.

Panel discussions -- under a panel leader -- were held throughout the state to acquaint the different groups with the districts program and the method of presenting it. Vocational agriculture students of the State College of Agriculture, the respective owners of the farms under consideration and other interested groups took part in the discussions.

E. H. Reed of the farm management unit, Lloyd Partain of cooperative relations in extension, and V. H. Hougan of the erosion control practices section, who attended the meetings at Perry and La Grange, were much impressed with the method of planning. It was especially gratifying to all concerned to find that the recommendations for proper land-use and conservation practices, as taught by the State College, parallel those of the SCS.

THE CHIEF BROADCASTS

In an eight-minute broadcast on the National Farm and Home Hour on March 16, H. H. Bennett and Robert Fechner reviewed the five years of cooperation between the SCS and CCC. In Mr. Fechner's opinion the soil conservation program will provide work for 300,000 boys for years to come.

MEDAL FOR FIRE HEROES

The American Forestry Association has announced that hereafter individuals who display a high degree of personal courage, judgment and initiative in fighting forest fires will be awarded a bronze medal to be known as the American Forest Fire Medal.

In order to place this award on a permanent basis, a fund of \$3,000 is considered necessary. Although some contributions have been forwarded by members of the SCS, others who have not heard of the plan might like to subscribe to this cause. Contributions from individuals and groups will be welcomed by the American Forestry Association, which will sponsor and handle all matters pertaining to the award.

CCC AT WORK

A picture booklet entitled "Hands to Save the Soil," depicting the role of the CCC boys in conservation in the Southeastern Piedmont region, has recently been prepared by the CCC in collaboration with the SCS. An explanatory text supplements photographs of some of the activities of the enrollees and their accomplishments.

PRINTERS' INK

Appraisals of the studies carried on by the section of climatic and physiographic research, emanating from two sources -- one from within the section, the other from the pen of a collaborator -- appeared in recent periodicals.

In the Monthly Weather Review for November 1938, C. W. Thornthwaite, Benjamin Holzman and David I. Blumenstock discuss "Climatic Research in the Soil Conservation Service." The significance of precipitation records, moisture deficiency as a climatic risk, and the flood problem in its bearing on erosion hazards are among the topics covered. It is pointed out that numerous problems have yet to be studied.

The December 1938 issue of the Bulletin of the American Meteorological Society contains an article entitled "The Muskingum Rainfall Maps" by Robert E. Horton, Collaborator of the SCS.

The series of studies conducted in the Muskingum watershed, Ohio, the maps being prepared (shortly to be published in monthly volumes), and some of the uses of these maps in relation to soil-water conservation are discussed by Dr. Horton. In his opinion the data obtained is of "the most fundamental importance" in the relation of rainfall data to land use problems.

The Big Bog area of northern Minnesota, originally part of the bottom of prehistoric Lake Agassiz, contains not only the largest peat fields but also the largest single waterfowl nesting region in the United States, a marshy tract of more than 200,000 acres.

The conservation program is discussed by Jack Manweiler, project game manager at Baudette, Minn., in a series of articles entitled "Minnesota's 'Big Bog'" appearing in the Minnesota Conservationist for December 1938, and January and February 1939.

Of the 500 families living on the two project areas, 475 have sold their property to the Government. A 20-acre forestry and wildlife nursery has been established; and those invaluable cooperators, the beavers, have taken over and strengthened half of the 156 dams constructed by the BAE. The second and third articles of the series discuss the wildlife development and the introduction of woodland caribou from northern Saskatchewan to the Red Lake wildlife refuge.

A further list of the places in which broomed locust has been observed, compiled by Theodore J. Grant of the hillculture section, appears in the Plant Disease Reporter (Bureau of Plant Industry) for February 15, 1939.

The table shows a list of places in which broomed locust was noted under the headings: State and nearest town; Route number; Severity of brooming; and Observers and date. This is the third in a series of articles by Mr. Grant on the distribution of this disease.

Approximately 20,000,000 acres in the cut-over area is reverting to the States of Michigan and Minnesota and to the counties in Wisconsin. The reason for this reversion, the method of acquisition, and the administration of the lands is discussed by E. J. Ellingson of Milwaukee, Wis., in an article on "Tax Reverted Lands in the Lake States" in the Journal of Farm Economics for February 1939.

New South Wales has taken the lead in conservation legislation among the Australian states. The purpose and provisions of the Soil Conservation Act of October 13, 1938 are discussed in an article by Leo J. Schaben of the Foreign Agricultural Service in Foreign Agriculture for January 1939.

Although voluntary cooperation on the part of landowners will be encouraged, the act provides that where damage originating from an owner's land is causing deterioration of lands of an adjoining owner, the government is empowered to compel the application of erosion measures or even to appropriate the land.

Millions of acres of low grade farming and pasture land in the North Central States should be converted into forests. In the Journal of Forestry for February 1939, L. E. Sawyer of the North Central Region presents a general picture of conditions in his area in an article on "The Farm Forestry Situation in the Central States."

Mr. Sawyer contends that the ultimate solution for the farm forestry problem would be public acquisition of submarginal lands and their management as state, county, town or community forests.

NOTES

Walter J. Roth spent March 10th with the agricultural economists of the Pennsylvania Agricultural Station outlining the procedure to be used in developing advance estimates of the probable economic and social consequences of the recommended soil and water conservation programs.

Farm business analysis records alone represent a retrospective picture inadequate for the needs of the SCS. The advance estimates will provide an opportunity to appraise the recommended soil and water conservation program in advance of its operation and will permit the improvement of those programs if necessary.

Maurice Donnelly, recently appointed leader of the California cooperative hillculture research project, left on March 6th to enter on his new duties at the Citrus Experiment Station, University of California, Riverside, Cal. Dr. Donnelly previously had charge of work Project B-6-2, cooperative hillculture tests. His present assignment was to fill the vacancy created by the death of Frank T. Bingham.

John M. Aikman, leader of the Iowa cooperative hillculture research project, was in Washington for three weeks on special assignment to assist in planning the ecological phases of hillculture research conducted on the SCS tract at the National Agricultural Research Center, Beltsville, Maryland. Dr. Aikman returned to his headquarters at the Iowa Agricultural Experiment Station on March 4.

BOOKS ON HAWAII

In connection with the authorization of an SCS project in Hawaii, the Library suggests the following books for informational reading:

Coulter, J. W. Land Utilization in the Hawaiian Islands.

Crawford, D. L. Hawaii's crop parade. *Hill culture*

Lind, A. W. An island community: ecological succession in Hawaii. *L.*

U. S. Dept. of the Interior. General information regarding the Territory of Hawaii.

